



WORKSHOP ON QUANTUM FIELDS AND NONLINEAR PHENOMENA
Held online, September 27-29, 2020

PROGRAM

Day	Time: UTC+1 (Brussels Time)	Activity	Speaker(s) : Title of the communication
27/09	09:00-09:15	Opening of the Workshop	Ioannis Rizos (SEENET-MTP President); Goran Djordjevic (SEENET Executive Director)
	09:15-11:00	Session for Young Researchers (I)	<p>Kostas Violaris-Gountonis: On Non Supersymmetric Heterotic Pati-Salam Models</p> <p>George Alestas: Stable Spherical Fluid Shells in a Schwarzschild-Rindler-anti-de Sitter Metric</p> <p>Tsvetan Vetsov: Holographic Fisher Information</p> <p>Ivo Iliev: T bar T deformations and applications to non-relativistic holography</p> <p>Aleksandrina Kirkova: Dissipative phase transition and spectral properties of the quantum Dicke model</p> <p>Redona Bexheti: State-of-the-art and the future perspectives in particle therapy</p> <p>Madalin Calamanciuc, Aurelian Isar: Time evolution of the Gaussian entropic discord in a squeezed thermal environment</p> <p>Serban Suci, Aurelian Isar: Information in open quantum systems</p>
27/09	11:00-11:30	Break / Special Session-in Romanian	Movie : IN MEMORIAM PROFESSOR OLIVIU GHERMAN

	<p>11:30-13:00</p>	<p>Session for Young Researchers (II)</p>	<p>Milan Milosevic: Observational parameters of inflation in holographic cosmology</p> <p>Fiona Kirk: Implications of $SU(2)_L$ gauge invariance for constraints on Lorentz violation.</p> <p>Amil Jajarmi: New aspects of fractional differential equations involving Mittag-Leffler nonsingular kernel.</p> <p>Marina Cuzminschi, Aurelian Isar: Optimal quantum teleportation in Gaussian open systems.</p> <p>Alina Dobre, Aurelian Isar: Evolution of geometric quantum discord in a squeezed thermal bath.</p> <p>Alexei Zubarev: Chaotic phenomena in highly dissipative arrays of Josephson junctions.</p>
	<p>13:00-14:00</p>	<p>Poster Session (The author could respond to questions)</p>	<p>Ion Cotaescu: Boltzmann equation in de Sitter expanding universe (poster)</p> <p>Aurelia Florian: Solitonic solutions for RK RLW Equation with different orders of nonlinearities.</p> <p>Corina Babalic: Hirota bilinear method for constructing integrable discretizations of semidiscrete solitonic equations.</p> <p>R. Cimpoiasu, A. Florian: Multisoliton solutions for the KMN Equation</p> <p>R.Constantinescu, C.Ionescu, A.Pauna: A reduction method for solving nonlinear PDEs</p> <p>Lampros Tryfillis: smeftFR: Automatising calculations in the SM EFT</p> <p>Florin Onete: Existence properties for problems with double-phase.</p>

28/09	09:00-09:15	Award Ceremony	Ioannis Rizos, Goran Djordjevic, Radu Constantinescu : Special Awards given by SEENET-MTP and UCV
	09:15-09:30	Invited Message	Lars Brink : Physics today - from the PhD to the Nobel Prize
	09:30-11:00	Invited Presentations (I)	Ignatios Antoniadis : Weak gravity conjecture in de Sitter space Loriano Bonora : A Yang-Mills-like theory with infinite many spins George Zoupanos : Reduction of Couplings and its application in a Finite Unified Theory and the MSSM
	11:00-11:30	Break	
	11:30-13:00	Invited Presentations (II)	Mihai Visinescu : Transverse Kahler structures and holomorphic Hamiltonian vector fields on Sasaki-Einstein spaces $T(1,1)$ and $Y(p,q)$. Branko Dragovich : Cosmology of nonlocal modified gravity Raul Jimenez : Do we understand the Universe?
	12:30-14:30	Break	
	14:30-16:00	Invited Presentations (III)	Aurel Isar : Dynamics of quantum coherence in Gaussian open systems. C. Bizdadea, E. M. Cioroianu, S. O. Saliu : D=4 vector field mass generation within a single BF model Gyorgy Steinbrecher : Linear stochastic processes with multiplicative noise Mirela Babalic : Hidden symmetries in multi-field cosmological models
	16:00-16:30	Break	
	16:30-18:00	SEENET EX COM Meeting	
29/09	09:00-10:30	Invited Presentations (IV)	Glenn Barnich : Soft degrees of freedom, Gibbons-Hawking contribution, entropy & modular invariance in Casimir effect. Vladimir Gerdjikov : On soliton equations and soliton interactions Radoslav Rashkov : Remarks on fields with a holographic dual
	10:30-11:00	Break	

	11:00-12:30	Invited Presentations (V)	<p>Dumitru Baleanu: Some new aspects of fractional variational principles and their applications</p> <p>Marko Vojinovic: Quantum gravity and elementary particles from higher gauge theory</p> <p>Radu Constantinescu: The functional expansion technique for solving nonlinear partial differential equations.</p>
	12:30-13:00	Closing of the Workshop	Radu Constantinescu, Goran Djordjevic, Ioannis Rizos